

Title (en)

Pressure sensor package assembly having an unconstrained sense die

Title (de)

Drucksensorverpackung mit einem spannungsfreien Sensor-Chip

Title (fr)

Ensemble d'emballage de capteur de pression doté d'une puce de détection sans contraintes

Publication

EP 2273247 A3 20160727 (EN)

Application

EP 10169189 A 20100709

Priority

- US 22483709 P 20090710
- US 82815510 A 20100630

Abstract (en)

[origin: EP2273247A2] A pressure detection mechanism (10) having a pressure sense die (21) which may be attached directly to a surface of an alumina-based substrate (22) with an adhesive (25, 27) having an optimum thickness. The adhesive may be stress compliant and may be one or more of silicone, silicone-epoxy, epoxy or any other suitable adhesive material. A compensation and interface application specific integrated circuit (23) may be attached to the surface of the package substrate (22). The pressure sense die (21) may be electrically connected to the integrated circuit (23) with bond wires (28, 29). The integrated circuit may be electrically connected to trace conductors (31) on the package substrate with bond wires, and trace conductors may be connected to stress compliant metal conductors or leads (32) for external connection to a mounting surface such as a printed circuit board. Hard plastic, or like material, symmetric covers (11, 12), with one or more pressure ports or vents (13, 14, 15), may be attached to both sides of the substrate (22).

IPC 8 full level

G01L 9/06 (2006.01)

CPC (source: EP US)

G01L 19/148 (2013.01 - EP US); **H01L 2224/48091** (2013.01 - EP US); **H01L 2224/48137** (2013.01 - EP US); **H01L 2224/49175** (2013.01 - EP US); **H01L 2224/73265** (2013.01 - EP US); **H01L 2924/10158** (2013.01 - EP US); **H01L 2924/1461** (2013.01 - EP US); **H01L 2924/15151** (2013.01 - EP US)

C-Set (source: EP US)

1. **H01L 2224/48091 + H01L 2924/00014**
2. **H01L 2924/1461 + H01L 2924/00**
3. **H01L 2224/49175 + H01L 2224/48137 + H01L 2924/00**

Citation (search report)

- [X] WO 2004111595 A1 20041223 - OLIVETTI I JET SPA [IT], et al
- [A] WO 2006023936 A1 20060302 - HONEYWELL INT INC [US], et al

Cited by

EP3715679A1; US11156522B2; US11566958B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

EP 2273247 A2 20110112; EP 2273247 A3 20160727; CN 101957245 A 20110126; CN 101957245 B 20140917; CN 104132773 A 20141105; US 2011005326 A1 20110113; US 8322225 B2 20121204

DOCDB simple family (application)

EP 10169189 A 20100709; CN 201010270262 A 20100709; CN 201410342824 A 20100709; US 82815510 A 20100630